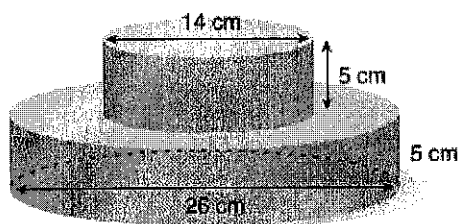


**Example 2****Determining the Surface Area of a Composite Object Made from Two Cylinders**

Two round cakes have diameters of 14 cm and 26 cm, and are 5 cm tall.

They are arranged as shown. The cakes are covered in frosting. What is the area of frosting?



Small Cake

$$\begin{aligned} SA &= \pi d h \\ &= 3.14 (14) (5) \\ &= 219.8 \text{ cm}^2 \end{aligned}$$

Large Cake

$$\begin{aligned} SA &= \pi r^2 + \pi d h \\ &= 3.14 (13)^2 + 3.14 (26) (5) \\ &= 530.66 + 408.2 \\ &= 938.86 \end{aligned}$$

$$\begin{aligned} \text{Total } SA &= 219.8 + 938.86 \\ &= 1158.66 \text{ cm}^2 \end{aligned}$$